

## 3 Types of Modelling/Testing Method

In your MT4 strategy tester, you may notice that you have 3 methods for backtesting.

Model:   
 Open prices only (fastest method to analyze the bar just completed, only for EAs that explicitly control bar opening)   
 Every tick (the most precise method based on all available least timeframes to generate each tick)   
 Control points (a very crude method based on the nearest less timeframe, the results must not be considered)   
 Open prices only (fastest method to analyze the bar just completed, only for EAs that explicitly control bar opening)

In this lecture, we will run through these 3 methods.

### The 3 Types

#### Open Prices Only

Method: Backtest based on the Open, High, Low and Close (OHLC) prices of the current timeframe only.

Pros: Lowest backtest and optimisation times.

Cons: Doesn't consider prices other than the OHLC. Thus, backtest accuracy may be compromised. However, if you are only using OHLC information in your trading robot (i.e. you don't consider prices other than OHLC in your trading rules), loss of backtest accuracy will probably be minimal.

#### Control Points

Method: Backtest based on the OHLC prices of the current timeframe and that of a timeframe which is one level lower.

E.g. If we choose to backtest on H1 data, it will use data from H1 *and* M30. The M30 data will be used to model the intra-bar price movements (i.e. price movements between the open and close times of the bar).

Pros: Low backtest and optimisation times. More detailed backtesting compared to the Open Price method

Cons: Not as accurate as the Every Tick method. Similarly, if you are only using OHLC information in your trading robot, loss of accuracy will probaby be minimal.

#### Every Tick

Method: Backtest based on 1 minute prices only. Note that, despite it being named "Every Tick", this method does not use tick data.

Pros: Highest accuracy. It models intra-bar price movement down to the M1 level.

Cons: Highest backtesting and optimisation times. If you are testing on M1 data, intra-bar price movement are simulated (more on this in a future chapter). More likely to find dirty data on a lower timeframe.

## Which is the best?

This is going to sound like a politically-correct answer, but there is no best. It depends on a few factors:

- Does your EA use OHLC data only or does it require the modelling of intra-bar movement
- Optimisation times (it could take hours if your EA is complex and it runs on "Every Tick")
- Timeframe. If you backtest on M1 data, your intra-bar price movement will be simulated (i.e. not real). We will talk about this again in a future chapter.
- Data cleanliness. Data might be more corrupted as we go down to lower timeframes

For more information on testing methods, see: <https://www.mql5.com/en/articles/1511>